

Appl. No. 10/511,498
Amdt. dated August 7, 2006
Reply to Office Action of April 11, 2006

In the Claims:

Please amend claims 1, 2, 10, 14 and 22 as follows:

1. (Currently Amended) A mixture to be employed in conjunction with water for preparing a sprayable slurry that hydrates to form a machinable plaster composition, said mixture comprising:

from about 80% to about 98% by weight calcium sulfate hemihydrate;

5 from about 1% to about 5% by weight adhesive binder for adhering said plaster mixture to a substrate; ~~and~~

from about 0.001% to about 10% of a polysaccharide; and

an internal binder.

2. (Currently Amended) The mixture according to claim 1 ~~further comprising an~~ wherein said internal binder is present in amounts of about 1% to about 13% by weight.

3. (Original) The mixture according to claim 2 wherein said internal binder is a poly (ethylene glycol).

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4. (Original) The mixture according to claim 2 wherein said internal binder is a poly(ethylene glycol) having a molecular weight of approximately 8,000 Daltons.

5. (Original) The mixture according to claim 2 wherein said internal binder is a poly (ethylene glycol), and said adhesive binder is an ethylene/vinyl acetate copolymer.

6. (Original) The mixture according to claim 1 wherein said adhesive binder is a water redispersible composition having adhesive properties.

7. (Original) The mixture according to claim 1 wherein said adhesive binder is an ethylene/vinyl acetate copolymer.

8. (Original) The mixture according to claim 1, further comprising a polymeric resin.

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9. (Original) The mixture according to claim 8 wherein said polysaccharide has a molecular weight greater than 2,000,000 Daltons.

10. (Currently Amended) The mixture according to claim 1 wherein said mixture comprises approximately 80% to 90% by weight of said calcium sulfate hemihydrate, approximately between 0.01% and 1% by weight of said polysaccharide, approximately between 4% and 12% by weight of said internal binder and approximately
5 between 1 and 5 percent by weight of said adhesive binder.

11. (Original) The mixture according to claim 10 wherein said internal binder is poly(ethylene glycol), and said adhesive binder is ethylene/vinyl acetate copolymer.

12. (Original) The mixture according to claim 10 further including less than 1% of a defoamer.

13. (Original) The mixture according to claim 11 wherein said mixture comprises from about 6% to about 9% by weight of said poly(ethylene glycol).

14. (Currently Amended) A sprayable slurry that hydrates to form a machinable plaster, said slurry comprising:

a dry mixture comprising:

calcium sulfate hemihydrate;

5 an internal binder

an adhesive binder; and

polysaccharide; and

from about 10% to about 50% water based on the weight of said dry mixture.

15. (Original) The slurry according to claim 14 wherein said slurry comprises less than 32 weight % water based on the weight of the dry mixture.

16. (Original) The slurry according to claim 15 wherein said slurry comprises less than 25 weight % water based on the weight of the dry mixture.

17. (Original) The slurry according to claim 14 wherein said calcium sulfate hemihydrate is alpha-calcium sulfate hemihydrate.

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18. (Original) The slurry according to claim 14, further comprising a defoamer.

19. (Original) The slurry according to claim 18 wherein said defoamer comprises from about 0.2% to about 0.8% by weight of said mixture.

20. (Original) The slurry according to claim 14 further including a setting rate retarder comprising one or more of sodium citrate, citric acid, tartaric acid, sodium tartrate, a proteinaceous material, or a phosphate.

21. (Previously Presented) A method of making a shaped plaster article comprising:

mixing a slurry comprising calcium sulfate hemihydrate, an adhesive binder for adhering said slurry to a substrate, 0.01 to 10% by weight polysaccharide and water;

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spraying said slurry onto a substrate;

allowing said slurry to set forming a hardened plaster; and

machining the hardened plaster to a shape with machine tools.

22. (Currently Amended) A shaped gypsum article on a substrate comprising:

an article shaped by machining the set ~~and dried~~ product of a slurry sprayed onto and adhering to a substrate, said slurry comprising calcium sulfate hemihydrate, an
5 adhesive binder for adhering said plaster mixture to a substrate, 0.001% to 10% by weight polysaccharide and water.

23. (Previously Presented) The mixture according to claim 1 wherein said polysaccharide comprises at least one of the group consisting of scleroglucans and xanthan gums.

24. (Previously Presented) The slurry according to claim 14 wherein said polysaccharide comprises at least one of the group consisting of scleroglucans and xanthan gums.

25. (Previously Presented) The shaped gypsum article according to claim 22 wherein said polysaccharide comprises at least one of the group consisting of scleroglucans and xanthan gums.